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Increasing healthy life expectancy equitably in England by 5 years by 2035: could it be achieved?

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In 2018, the UK Government's Secretary of State for Health and Social Care articulated an ambition to increase healthy life expectancy by five years by 2035 for England, while also reducing the gap in this between the rich and the poor[1]. While we doubt that England – or indeed any high-income country – could achieve this ambition, we describe a set of policies with the potential to make a significant contribution.

Focus and approach

The leading causes of years of life lost in England are tobacco use, unhealthy diet, alcohol consumption and physical inactivity[2] and all of these behaviours are socio-economically patterned. Thus, changing them has the potential both to increase healthy life expectancy and to reduce the gap between rich and poor. Upward trends in life expectancy and healthy life expectancy in England have slowed since 2010[3,4]. One plausible explanation for this is the impact of policies intended to reduce the national budget deficit[5]. While the focus of this paper is on tackling health behaviours, we recognise the need for co-ordinated action across multiple policy areas including targeting underlying, structural causes of health inequalities[6].

Two complementary approaches to prevention involve targeting individuals at high risk, and targeting whole populations [7]. Here we emphasise the latter, using structural or policy interventions that create healthier environments – including physical, economic, digital, social and commercial environments. Healthier environments not only enable healthier behaviours in the wider population, but also provide contexts in which behaviour change resulting from targeting individuals at high risk is more likely to be sustained[8-10]. Both approaches are needed: targeting individuals through, for example, weight loss programmes without changing the environments that promote excess energy consumption is akin to treating people for cholera then sending them back to communities with contaminated water supplies.

Some interventions targeting individuals engender inappropriately high expectations of effectiveness, particularly those arising from technological innovations that aim to motivate people to change their behaviour by informing them of their potentially reducible risks of disease. The evidence, however, does not support these expectations: such information has little or no impact on actual behaviour, which is driven much more powerfully by the physical, economic, social and commercial environments in which people live[11,12]. Changing these environments is where attention needs to focus if large gains in healthy life expectancy are to be achieved.

Even small effect sizes matter: population-level interventions may have small impacts at the individual level but very wide reach, resulting in substantial overall population impact. For example, a sustained 13kcal/day reduction in energy intake in those aged 16-29 is estimated to reduce obesity by 7%[13]. Moreover, population-level interventions also have greater potential to achieve change equitably given their low demands upon the cognitive, social and material resources of individuals[9,10].

Interventions with potentially largest and most equitable effects

Guided by these principles, informed both by evidence reviews and a meeting of UK population health experts, we generated a list of interventions with potentially the largest and most equity-enhancing effects on healthy life expectancy (Panel). These comprise three broad categories: first, fiscal and economic interventions targeting the affordability of products and activities that harm health; second, interventions to restrict product marketing or to market healthier alternatives; and third, interventions to reduce the availability – in space, time or by age – of products or activities that harm health, or to increase the availability of products or activities that benefit health.

There is good evidence for effective interventions across all four sets of behaviours. The evidence is strongest – in terms of effect sizes to improve population health, reduce inequalities and certainty of effect – for fiscal and economic interventions that reduce the affordability of tobacco and alcohol, with growing evidence for sugar-sweetened drinks [14]. These aim to correct market failures by internalising the external costs – including damage to population health – of harmful commodities. Fiscal and economic interventions showing most promise to increase physical activity are those that increase the affordability of walking, cycling and public transport and disincentivise driving[15].

Effective marketing interventions include banning or restricting advertising and marketing designed to persuade people to consume health-damaging products. They also include mass media campaigns that encourage people *not* to consume such products. Reducing exposure of children and adults to alcohol and unhealthy food marketing reduces their consumption[16,17], and anti-tobacco campaigns reduce smoking prevalence and increase quitting rates[18,19].

Reducing the availability of products harmful to health – *i.e.* the ease with which they can be obtained – can be achieved by limiting where and when they are sold and to whom, as well as reformulating and re-sizing products to reduce their harmfulness[20]. Systemic approaches to increase physical activity include increasing public transport and the availability of places that are walkable, and reducing the convenience of car driving.

Such interventions should not be considered in isolation. The application of a systemic approach predicts synergies between interventions, both within and across behavioural domains[8]. Responses by threatened industries – such as the tobacco industry reducing prices in advance of a tax increase to absorb the price rise[21] – need to be anticipated to protect the health-enhancing impact of any set of policies.

Overcoming barriers to implementation of population-level interventions

Even the most efficacious interventions require supportive political and social environments for effective implementation. Industry opposition to policies that threaten their markets manifests in their lobbying both policy-makers and the public[22]. Public support for interventions is often critical for policy-makers[23,24] and can be increased by communicating evidence of policy effectiveness[25]. The UK Soft Drinks Industry Levy attracted high levels of public support, showing that a public and political case for fiscal interventions can be made[26]. Framing the case for intervention in terms of human rights – such as the Right to Health or The Rights of the Child – also holds promise[27,28].

The effective implementation of the population interventions described here will be hard to achieve – requiring strong leadership to overcome potentially high political costs – but will be essential if we are to increase healthy life expectancy for the poorest as well as the rich by any amount, let alone by 5 years by 2035.

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Panel: Population-level interventions with likely largest effects on healthy life expectancy and inequalities

Tobacco Control
Fiscal and economic
Tax to ensure annual real price increases in tobacco
Reform current tobacco taxes to ensure consistent unit prices*: e.g.* close price gap between manufactured and hand-rolled tobacco
Marketing
Well-designed mass media campaigns
Pack inserts on benefits of quitting and sign-posting to smoking cessation services
Availability
Raise legal age to buy tobacco from 18 to 21 years

Alcohol Control
Fiscal and economic
Legislate for Minimum Unit Price
Tax to ensure annual real price increases in alcohol
Reform current taxes on alcohol to ensure consistent unit prices: i.e. tax should be proportional to percentage alcohol by volume
Marketing
Restrict advertising and sponsorship to reduce exposure to children
Availability
Reduce availability - spatial, temporal and age based: e.g. cap number and density of outlets; Early Morning Restriction Orders; enforce existing minimum age purchase laws

Food-Related
Fiscal and economic
Tax to incentivize industry to reformulate: *e.g.* extend SDIL to other drinks and foods high in sugar
Restrict price promotions on unhealthier foods
Increase affordability of fruit and vegetables for low -income families
Marketing
Restrict advertising and sponsorship to reduce exposure of children to unhealthy food
Mandate point of choice information: e.g. calorie labelling in the out of home sector
Availability
Increase availability of lower salt products and reduce availability of higher salt products, through voluntary or mandatory programmes
Enforce and extend food buying standards in public sector outlets including schools, hospitals, local and national government agencies
Restrict placement of unhealthier foods in high-sales areas including aisle ends and checkouts
Mandate smaller portions of ready-to-eat foods

Activity-Related
Fiscal and economic policies
Tax to shift affordability to public transport and away from car use; e.g. reinstate fuel duty escalator
Road user pricing: e.g. parking and congestion zone charging
Marketing
Mass media campaigns *e.g. This Girl Can*
Availability
'Whole system' spatial planning to promote physical activity including integrated public transport, high walkability and cycleability given safe and attractive infrastructure
Regular mass participation events: *e.g. parkrun UK*

Panel Legend

The list of interventions included is informed by the World Health Organization report on 'best buys'[29] to prevent non-communicable diseases,[29] and the Bloomberg Philanthropies report on fiscal policies for health [14].

To note

1. *There will be synergies between some of the recommended interventions such that their cumulative effect will be greater than their introduction as single components; e.g. the effect of fiscal and economic policies concerning travel will be greater if combined with appropriate spatial planning approaches and development of safe attractive infrastructure for walking and cycling.*
2. *Implementing <u>all</u> of these interventions would be the starting point for making the step-change needed to show improvements in population health and reduce the gap in health between the richest and the poorest in England. Further population level interventions, based on the principles outlined above, are likely to be necessary.*

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